REMARKS

The Final Office Action of August 26, 2005 considered and rejected claims 1-7 and 9-20. Claims 1-7 and 9-20 were rejected under 35 U.S.C. 102(b) as being anticipated by Kaasila (U.S. Patent No. 5,155,805). [1]

By this paper, claims 1, 5, 6, 16, and 20 have been amended.[2] Accordingly, following this paper, claims 1-7 and 9-20 remain pending. Of these claims, claims 1, 16, and 20 are the only independent claims at issue.

As reflected in the claims listing above, the present invention is generally directed to embodiments employing methods for dynamically determining one or more directions of freedom for one or more control points. As recited in claim 1, for example, this may be accomplished in a computing system that has access to a set of control points used to generate an outline of a graphical object, while the outline is used to determine how the graphical object is rendered on a pixel grid while some control points are constrained to pre-determined locations. As recited, this method includes identifying a first direction of compliance and, based on the first direction of compliance, automatically and dynamically determining a first direction of freedom in which the control point can be moved to comply with the first constraint, such that the movement of the control point in the first direction of freedom has a reduced likelihood of causing non-compliance with other constraints. As further clarified by the amended claim, automatically and dynamically determining a first direction of freedom in which the control point can be moved to comply with the first constraint includes identifying a first direction of compliance and first and second axes, calculating a first angle between the first direction of compliance and the first axis, calculating a second angle between the first direction of

---

[1] Although the prior art status and some of the assertions made with regard to the cited art is not being challenged at this time, Applicants reserve the right to challenge the prior art status and assertions made with regard to the cited art, as well as any official notice, which was taken in the last office action, at any appropriate time in the future, should the need arise, such as, for example in a subsequent amendment or during prosecution of a related application. Accordingly, Applicants' decision not to respond to any particular assertions or rejections in this paper should not be construed as Applicant acquiescing to said assertions or rejections.

[2] Support for the claim amendments, including amendments related to automatically and dynamically determining a first direction of freedom in which the control point can be moved to comply with the first constraint by, in part, calculating first and second angles and comparing the first and second angles are clearly supported by paragraphs [0040]-[0043] and [0046]-[0048], among other passages throughout the specification. Accordingly, it is respectfully submitted that amendments to the pending claims do not add new matter, and entry thereof is respectfully submitted.

compliance and the second axis, comparing the calculated angles, and determining that the first angle is smaller than the second angle.

The claimed embodiments recited in the other independent claims (16 and 20) are directed to methods for dynamically setting the direction of freedom vectors in computing systems and with computer program products, respectively, and generally correspond to the method recited in claim 1.

Kaasila, the only cited reference, is generally directed to specifying projection and freedom vectors in font instructions to facilitate moving control points in displaying digital typeface on raster output devices. However, Kaasila fails to disclose or suggest the method recited in the pending claims. For example, among other things, Kaasila fails to disclose or suggest a method or system which includes identifying a first direction of compliance and, based on the first direction of compliance, automatically and dynamically determining a first direction of freedom in which a control point can be moved to comply with the first constraint such that the movement of the control point in the first direction of freedom has a reduced likelihood of causing non-compliance with other constraints. While Kaasila teaches using font instructions to set freedom and projection vectors corresponding to control points for a font outline, Kaasila fails to disclose a method for automatically and dynamically determining a first direction of freedom *based on a first direction of compliance*. In contrast, Kaasila teaches the use of pre-programmed font instructions that specify freedom vectors based on: (i) default settings; (ii) pre-determined axes; and (iii) a portion of a font outline defined by a line segment. For example, Kaasila discloses specific pre-programmed font instructions for maintaining the symmetry of a lowercase "o" and for maintaining a diagonal stroke weight of a capital "Y" (Col. 7, ln. 55-64).

With reference to the lowercase "o" (see Figure 8 and the accompanying description), Kaasila teaches creating font instructions in which the "Projection and Freedom vectors are set in default to be both in the x-axis," and moving the control point along the x-axis. (Col. 8, ln. 20-26). Kaasila also teaches that following movement of the control point along the freedom vector aligned with the x-axis, the projection and freedom vectors are simultaneously set along the y-axis. (Col. 8, ln. 20-26, Figure 8).

With reference to the capital "Y" (see Figures 12A-13, and the accompanying description), Kaasila discloses a font instruction in which a first set of projection and Freedom vectors are simultaneously set along a y-axis. (Col. 10, ln. 19-22; Figure 12, ln. 7).

Subsequently, the font instructions set a second projection vector parallel to the portion of a font outline defined by the line 1-0, and then rotate the second projection vector to be perpendicular to the line 1-0. (Col. 10, ln. 21-26). Thereafter, a second freedom vector is set parallel to a portion of the font outline defined by line 6-7, thus defining the direction control point 7 will be moved. (Col. 10, ln. 26-31). A similar process is repeated for third projection and freedom vectors (Col. 10, ln. 38-43). Specifically, a third projection vector is set perpendicular to line 5-4, while the third freedom vector is set parallel to line 7-8. (Col. 10, ln. 39-43).

Accordingly, although Kaasila describes moving control points along freedom vectors, those freedom vectors are set by default font instructions, by reference to coordinate axes, or along line segments of font outlines, and Kaasila fails to disclose or suggest, particularly in any enabled description, identifying a first direction of compliance and, *based on the first direction of compliance*, automatically and *dynamically* determining a first direction of freedom in which the control point can be moved to comply with a first constraint, as claimed.

Applicants note that Kaasila appears to disclose setting projection and freedom vectors, wherein the projection vector determines the direction of measurement and the freedom vector determines the direction of movement for a control point. It might also be argued that setting a vector in any direction arguably creates an angle with respect to axes (e.g. x and y-axes). However, notwithstanding the foregoing, Applicants respectfully submit that Kaasila fails to disclose a method which includes automatically and dynamically determining a first direction of freedom in which a control point can be moved by, in part, calculating first and second angles between the first direction of compliance and first and second axes, respectively, and comparing the calculated first angle with the calculated second angle, and determining that the first angle is smaller than the second angle.

For example, Kaasila teaches, with respect to the lowercase "o" that the freedom and projection vectors are set along the x-axis. (Col. 8, ln. 20-25). Even if setting a projection vector allows the angle between the projection vector and an angle to be calculated, Kaasila does not disclose that any such calculation is actually made with respect to two axes, or that the calculated angles are compared. Merely creating an angle is not the equivalent of calculating the angle. Accordingly, Kaasila fails to disclose calculating first and second angles, and comparing the first and second angles, as claimed.

In rejecting this element of the claims, it appears as though the Examiner is suggesting that it would be possible to measure angles upon setting the vector. However, in this regard, Applicants would like to remind the Examiner that the "FACT THAT THE CLAIMED INVENTION IS WITHIN THE CAPABILITIES OF ONE OF ORDINARY SKILL IN THE ART IS NOT SUFFICIENT BY ITSELF TO ESTABLISH *PRIMA FACIE* OBVIOUSNESS." MPEP § 2143.01. (original emphasis). For this reason the art must teach or suggest each and every limitation and there must be at least a motivation to combine the art, without relying on the teachings of the present Application. Otherwise, the rejection is based on improper hindsight reconstruction. In the present case, the Examiner has failed to cite any disclosure in which an angle is even measured or calculated, let alone two different angles. The Examiner has also failed to provide any motivation for measuring or calculating and comparing the angles to determine which is greater, as claimed. Accordingly, in this regard, Applicants respectfully submit that a prima facie case of obviousness has not been established.

Additionally, Applicants respectfully submit that Kaasila does not disclose or suggest a computerized method for dynamically determining one or more directions of freedom for a control point such that the control point can be moved to comply with a corresponding one or more constrains in which the method includes, in part, automatically and dynamically determining a first direction of freedom. In fact, Kaasila teaches the opposite. Specifically, Kaasila teaches that routines are coded into font instructions to pre-define freedom vectors. (Col. 8, ln. 20-38; Col. 10, 19-43). More specifically, users who develop the font outlines select the from among the ten routines listed in Column 9 so as to "sequence the font instructions" and thereby "control the font." (Col. 7, ln. 24-32; Col. 9, 47-61). Accordingly, font editors and users set freedom vectors such that they are statically defined by the font instructions. As a result, Kaasila fails to anticipate or make obvious the method recited in Claim 1 of the present invention, particularly in combination with the other recited claim elements.

Claim 16 is similar to claim 1, except that claim 16 applies to a set of control points and wherein the first direction of freedom is determined automatically and dynamically upon comparing the direction of the first projection vector the direction of the first axis and the direction of the second axis, which is neither disclosed nor suggested by the art of record for at least the reasons provided above.

Although the foregoing amendments have focused primarily on the independent claims, it will be appreciated that, for at least the foregoing reasons, all of the other rejections and assertions of record with respect to the remaining claims are now moot, and therefore need not be addressed individually.

Nevertheless, Applicants will note for the record that the last Office Action failed to give any notice or consideration to the amendments that were added to claim 9 in the last response. (*See* Office Action, page 7 in which the Examiner cites the reasoning for rejecting claim 9 as was originally provided in the first action, omitting any reference to the prior amendment or claim language in which "the first direction of compliance is used to set the second direction of freedom."). In light of the rejection citing only an un-amended claim 9, Applicants respectfully renew their argument as previously submitted, that claim 9 is also not anticipated by Kaasila.

Particularly, among other things, Kaasila fails to teach or suggest setting a second direction of freedom perpendicular to the first direction of compliance, the second direction of freedom indicating a direction in which the control point can move to comply with the second constraint, and such that the first direction of compliance is used to set the second direction of freedom, as claimed. Although Kaasila appears to teach setting a projection vector being set along an x-axis, and subsequently setting a freedom vector along the y-axis (Col. 8, ln. 21-38), Kaasila fails to set the second freedom vector in the same manner as claimed. In particular, Kaasila identifies only a single routine usable to set a perpendicular freedom vector. By using a line defined by p1 and p2 as entered by a user, the "SFVTL(1) p1 p2" routine identified in Column 9 sets a freedom vector perpendicular the line along which p1 and p2 are located. However, Kaasila fails to describe any use for the routing and, notably, fails to teach or suggest that the p1 and p2 form a line identified with a first direction of compliance. Accordingly, Kaasila fails to teach using a first direction of compliance to set a second direction of freedom, as claimed.

In view of at least the foregoing, it will be appreciated that Kaasila clearly fails to anticipate or make obvious the claimed invention. With regard to the foregoing remarks, Applicants note that the foregoing discussion focused primarily on independent claim 1 and dependent claim 9, such that many of the rejections of record, such as those made to many dependent claims, have not been specifically traversed. Nevertheless, it is not necessary that every rejection be traversed inasmuch as all of the pending claims should now be allowed and

distinguished over the art of record, for at least the reasons provided above. Nevertheless, Applicants reserve the right to specifically challenge any of the rejections of record at any appropriate time in the future, should the need arise, including any official notice.

In the event that the Examiner finds remaining impediment to a prompt allowance of this application that may be clarified though a telephone interview, the Examiner is requested to contact the undersigned attorney.

Dated this 12 day of October, 2005.

Respectfully submitted,

RICK D. NYDEGGER
Registration No. 28,651
JENS C. JENKINS
Registration No. 44,803
Attorneys for Applicant
Customer No. 047973

RDN:JCJ:CCN:ppa

W:\14984\36\PPA0000001325V001.DOC